

10/553052

Application No. Not Yet Assigned

Docket No.: M1071.1939

Paragraph at page 9, line 10 to page 10, line 1:

In the formula $Ba\{Ti_{x1}M_{x2}(Mg_{1-y}Zn_y)(Ta_{1-u}Nb_u)_z\}_vO_w$ described in the first aspect, the formula $Ba\{Ti_{x1}M_{x2}Zn_y(Ta_{1-u}Nb_u)_z\}_vO_w$ described in the first second aspect, and the formula $Ba\{Ti_{x1}M_{x2}Mg_y(Ta_{1-u}Nb_u)_z\}_vO_w$ described in the first third aspect, the molar ratio of Ta or Nb to Mg or Zn is represented by z/y and is in the range of 1.60 to 2.40 because of the perovskite structure. It is not preferable that the ratio z/y be outside the above range because the translucent ceramics would have a linear transmittance of less than 20%. The ratio of the B sites to the A sites is represented by v and is in the range of 1.00 to 1.05 because of the same reason described above. The abundance of O is represented by w and is close to 3. When the B sites of these perovskite compounds are occupied by at least one of tetravalent elements such as Ti, Sn, Zr, and Hf, these perovskite compounds have a cubic crystal structure and are translucent.

Page 10, line 5 from the bottom to page 11, line 11:

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The composition of the translucent ceramics according to the first to third aspects of the present invention will now be separately described ~~for composition~~ in detail. The translucent ceramics of the first to third aspects are different in the number of replaced tetravalent elements from each other.

Page 13, last paragraph:

As described above, the translucent ceramics according to the first and second to third aspects can be more greatly varied in refractive index and Abbe number as compared to known translucent ceramics. This leads to an increase in the degree of freedom in designing optical devices.